

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. **(Currently Amended)** A computer-implemented display system for visualizing the effect of selected values of a plurality of design variables on a plurality of performance attributes, said display system comprising:
 - a processor having an input for accepting instructions and an output for driving a visual display;
 - a plurality of control graphs generated on said display using said output of said processor, ~~[at least one of]~~ said control graphs ~~[illustrating]~~ showing relationships between said [an effect of a first] design variables and said [on a first] performance attributes;
 - a plurality of performance graphs generated on said display using said output of said processor, ~~[at least one of]~~ said performance graphs showing ~~[a]~~ relationships between said ~~[first performance attribute and a second]~~ performance attributes;
 - a plurality of decision graphs generated on said display using said output of said processor, ~~[at least one of]~~ said decision graphs showing ~~[a]~~ relationships between said ~~[first design variable and a second]~~ design variables; and
 - a design-interface coupled to said input of said processor, said design-interface enabling a user to manipulate said ~~[first]~~ design variables,

wherein manipulation of said design variables causes display of an effect of said manipulation on said performance attributes, and display of a functional relationship between performance attributes [to control said first performance attribute].

2. **(Original)** The computer-implemented display system of claim 1 wherein said design-interface is a graphical user-interface.
3. **(Original)** The computer-implemented display system of claim 2 wherein said graphical user-interface comprises a scroll-bar having a user-adjustable slider and a value of said first design variable changes in response to movement of said adjustable slider.
4. **(Original)** The computer-implemented display system of claim 1 wherein said design-interface comprises a field into which a designer enters a value for said first design variable.
5. **(Original)** The computer-implemented display system of claim 1 wherein said first design variable is a random variable and said design-interface enables a designer to specify a probability distribution of said first design variable.
6. **(Original)** The computer-implemented display system of claim 1 further comprising a specification-interface coupled to said plurality of performance graphs, said specification-interface enabling a designer to specify a range of permissible values for said first performance attribute.
7. **(Original)** The computer-implemented display system of claim 6 wherein said specification-interface further comprises a designer-preference interface for enabling a designer to assign a weight to said first performance attribute, thereby indicating an importance of said first performance attribute relative to said second performance attribute.
8. **(Original)** The computer-implemented display system of claim 6 wherein said first performance attribute is a random variable and said specification-interface enables a user to specify a probability distribution associated with said first performance attribute.
9. **(Original)** The computer-implemented display system of claim 1 wherein said plurality of control graphs is disposed in an array.

10. **(Original)** The computer-implemented display system of claim 9 wherein said array is a rectangular array of rows and columns, each row being associated with a performance attribute and each column being associated with a design variable.
11. **(Original)** The computer-implemented display system of claim 1 wherein said at least one control graph displays an indication of allowable values of said first design variable.
12. **(Original)** The computer-implemented display system of claim 1 wherein said at least one performance graph depicts a region of permissible values for said first and second performance attributes.
13. **(Original)** The computer-implemented display system of claim 12 wherein said region has a boundary representative of a Pareto optimal set of permissible values of said first and second performance attributes.
14. **(Original)** A method of visualizing the effect of selected values of a plurality of design variables on a plurality of performance attributes, said method comprising:
 - displaying a plurality of control graphs, at least one of said control graphs illustrating an effect of a first design variable on a first performance attribute;
 - displaying a plurality of performance graphs, at least one of said performance graphs showing a relationship between said first performance attribute and a second performance attribute;
 - displaying a plurality of decision graphs, at least one of said decision graphs showing a relationship between said first design variable and a second design variable;
 - manipulating said first design variable to control said first performance attribute; and
 - updating said at least one performance graph and said at least one decision graph in response to said manipulation of said first design variable.

15. **(Original)** The method of claim 14 wherein said manipulating said first design variable comprises manipulating an element of a graphical user-interface.
16. **(Original)** The method of claim 15 wherein said manipulating an element of a graphical user-interface comprises sliding a user-adjustable slider on a scroll-bar.
17. **(Original)** The method of claim 14 wherein said manipulating said design variable comprises entering a value for said first design variable in a text field.
18. **(Original)** The method of claim 14 wherein said manipulating said first design variable comprises specifying a probability distribution of said first design variable.
19. **(Original)** The method of claim 14 further comprising specifying a range of permissible values for said first performance attribute.
20. **(Original)** The method of claim 14 further comprising assigning a weight to said first performance attribute, thereby indicating an importance of said selected performance attribute relative to said second performance attribute.
21. **(Original)** The method of claim 19 further comprising specifying a probability distribution associated with said first performance attribute.
22. **(Original)** The method of claim 14 further comprising disposing said plurality of control graphs in an array.
23. **(Original)** The method of claim 14 further comprising disposing said plurality of control graphs in a rectangular array of rows and columns, each row being associated with a performance attribute and each column being associated with a design variable.
24. **(Original)** The method of claim 14 further comprising displaying, on said at least one control graph, an indication of allowable values of said first design variable.
25. **(Original)** The method of claim 14 further comprising displaying, on said at least one

performance graph, a region of permissible values for said first and second performance attributes.

- 26. (Original)** The method of claim 14 further comprising displaying, on said at least one performance graph, a region of permissible values for said first and second performance attributes, said region having a boundary representative of a Pareto optimal set of permissible values of said first and second performance attributes.
- 27. (Original)** A computer-readable medium having encoded thereon software for visualizing the effect of selected values of a plurality of design variables on a plurality of performance attributes, said software comprising instructions for:
- displaying a plurality of control graphs, at least one of said control graphs illustrating an effect of a first design variable on a first performance attribute;
 - displaying a plurality of performance graphs, at least one of said performance graphs showing a relationship between said first performance attribute and a second performance attribute;
 - displaying a plurality of decision graphs, at least one of said decision graphs showing a relationship between said first design variable and a second design variable;
 - manipulating said first design variable to control said first performance attribute; and
 - updating said at least one performance graph and said at least one decision graph in response to said manipulation of said first design variable.
- 28. (Original)** The computer-readable medium of claim 27 wherein said instructions for manipulating said first design variable comprise instructions for manipulating an element of a graphical user-interface.
- 29. (Original)** The computer-readable medium of claim 28 wherein said instructions for

manipulating an element of a graphical user-interface comprise instructions for sliding a user-adjustable slider on a scroll-bar.

- 30. (Original)** The computer-readable medium of claim **27** wherein said instructions for manipulating said design variable comprise instructions for entering a value for said first design variable in a text field.
- 31. (Original)** The computer-readable medium of claim **27** wherein said instructions for manipulating said first design variable comprise instructions specifying, a probability distribution of said first design variable.
- 32. (Original)** The computer-readable medium of claim **27** wherein said software further comprises instructions for specifying, a range of permissible values for said first performance attribute.
- 33. (Previously Presented)** The computer-readable medium of claim **27** wherein said software further comprises instructions for assigning a weight to said first performance attribute, thereby indicating an importance of said selected performance attribute relative to said second performance attribute.
- 34. (Original)** The computer-readable medium of claim **32** wherein said software further comprises instructions for specifying a probability distribution associated with said first performance attribute.
- 35. (Original)** The computer-readable medium of claim **27** wherein said software further comprises instructions for disposing said plurality of control graphs in an array.
- 36. (Original)** The computer-readable medium of claim **27** wherein said software further comprises instructions for disposing said plurality of control graphs in a rectangular array of rows and columns, each row being associated with a performance attribute and each column being associated with a design variable.

- 37. (Original)** The computer-readable medium of claim 27 wherein said software further comprises instructions for displaying, on said at least one control graph, an indication of allowable values of said first design variable.
- 38. (Original)** The computer-readable medium of claim 27 wherein said software further comprises instructions for displaying, on said at least one performance graph, a region of permissible values for said first and second performance attributes.
- 39. (Original)** The computer-readable medium of claim 27 further comprising instructions for displaying, on said at least one performance graph, a region of permissible values for said first and second performance attributes, said region having a boundary representative of a Pareto optimal set of permissible values of said first and second performance attributes.